

I Claim:

1. Oven construction comprising first wall means forming a substantially closed oven cabinet, second wall means forming a substantially closed oven cavity means having an upper portion and a lower portion, HTA supply means mounted in said lower portion of said cavity means for generating a rising HTA flow within said cavity means, and air flow outlet means formed thru a lower section of said second wall means, whereby said HTA from said supply means will rise into said upper portion of said cavity means and then as it becomes cooler will gravitate downwardly into said lower portion of said cavity means and exit thru said outlet means, whereby said HTA will be forced to travel a longer residence path within said cavity means and release a larger amount of heat energy into said cavity means prior to discharge of said HTA therefrom.

2. The oven construction of claim 1 wherein a steam generator means is mounted in said cavity means and comprises water inlet means, heat sink means, steam outlet means, water reservoir means mounted on the exterior of said first wall means on an upper portion thereof, and water feed line means passing thru said first and second wall means and into said cavity means and having one end connected to said reservoir means and having its other end juxtaposed said inlet means, whereby a measured amount of water can be poured into said reservoir means and conducted thru said feed line means into said inlet means and into contact with said heat sink means to produce a desired amount of steam within said cavity means.

3. The oven construction of claim 1 wherein said HTA supply means comprises a gas burner installation.

4. The oven construction of claim 3 wherein said outlet means are in air flow communication with air flow duct means which extend upwardly from said outlet means to adjacent the top portion of a back wall of said first wall means of said oven cabinet, and wherein vent openings are provided in said top portion and are in air flow communication with said duct means to vent gas combustion exhaust gases.

5. The oven construction of claim 4 wherein baffle plate means is mounted in said cavity means to substantially separate said gas burner installation from the remainder of said cavity means, wherein said heat sink means comprises a recess indentation, in said baffle plate means, and wherein a plurality of metal pieces are contained in said indentation.

6. The oven construction of claim 5 wherein said metal pieces are stainless steel balls.

7. The oven construction of claim 1 wherein said HTA supply means comprises an electrical heating element.

8. Oven construction comprising first wall means forming a substantially closed oven cabinet, second wall means forming a substantially closed oven cavity means having an upper portion and a lower portion, HTA supply means mounted in said lower portion of said cavity means for generating a rising HTA flow within said cavity means, steam generator means mounted in said cavity means and comprising water inlet means, heat sink means, steam outlet means, water reservoir means mounted on the exterior of said first wall means on an upper portion thereof, and water feed line means passing thru said first and second wall means and into said cavity means and having one end connected to said reservoir means and having its other end juxtaposed said inlet means, whereby a measured amount of water can be poured into said reservoir means and conducted thru said feed line

means into said inlet means and into contact with said heat sink means to produce a desired amount of steam within said cavity means.

9. The oven construction of claim 8 wherein said HTA supply means is an electrical heating element.

10. The oven construction of claim 3 wherein said steam generator means is mounted in said cavity means directly within the upwardly directed HTA flow from the gas burner installation.

11. Oven construction comprising first wall means forming a substantially closed oven cabinet, second wall means forming a substantially closed oven cavity means having an upper portion and a lower portion, HTA supply means mounted in said lower portion of said cavity means for generating a rising HTA flow within said cavity means, air flow first outlet means formed thru an upper section of said second wall means, air flow second outlet means formed thru a lower section of said second wall means, said first and second outlet means communicating with a common exhaust duct means, air flow control damper means on said duct means for regulating air flow thru each of said outlet means, said damper means including control means responsive to oven operating time, oven or exhaust duct air temperature or air flow rate, or all of these parameters simultaneous to move said damper means to any desired position whereby thru control of said damper means proper oven warm-up and exhaust draft is achieved as well as said HTA from said supply means can be caused to rise into said upper portion of said cavity means and then as it becomes cooler to gravitate downwardly into said lower portion of said cavity means and exit thru said second outlet means, whereby said HTA will be forced to travel a longer residence path within said cavity means and release a larger amount of heat energy into said cavity means prior to discharge of said HTA therefrom.

12. The oven construction of claim 1 wherein separate damper blades are provided for each said outlet means, and independently operable control means are provided for each said damper blade.

13. The oven construction of claim 12 wherein each said control means comprises electromechanical means which includes actuation means associated with thermocouple/thermopile devices within the oven construction.

14. The oven construction of claim 11 wherein independently operable damper blades are provided for each said outlet means, and wherein said control means operates each said blade independently of or in tandem with the other

15. The oven construction of claim 11 wherein a steam generator means is mounted in said cavity means and comprises water inlet means, heat sink means, steam outlet means, water reservoir means mounted on the exterior of said first wall means on an upper portion thereof, and water feed line means passing thru said first and second wall means and into said cavity means and having one end connected to said reservoir means and having its other end juxtaposed said inlet means, whereby a measured amount of water can be poured into said reservoir means and conducted thru said feed line means into said inlet means and into contact with said heat sink means to produce a desired amount of steam within said cavity means.

16. The oven construction of claim 11 wherein said HTA supply means comprises a gas burner installation.

17. The oven construction of claim 16 wherein baffle plate means is mounted in said cavity means to substantially separate said gas burner installation from the remainder of said cavity means, wherein said heat sink

means comprises a recess indentation, in said baffle plate means, and wherein a plurality of metal pieces are contained in said indentation.

18. The oven construction of claim 17 wherein said metal pieces are stainless steel balls.

19. The oven construction of claim 11 wherein said HTA supply means comprises an electrical heating element.

20. The oven construction of claim 17 wherein said steam generator means is mounted in said cavity means directly within the upwardly directed HTA flow from the gas burner installation.